Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

**Chemical Reactions and Forensics Project**

**Task: Create a PowerPoint or Google Slides presentation that investigates the forensic applications of one of the following reactions.**

1. Marsh Test: used to detect the poison arsenic trioxide (As2O3), which was untraceable in the human body until the creation of this test
2. Iodine fuming: used to develop fingerprints on porous surfaces, especially paper
3. Developing fingerprints using silver nitrate
4. Luminol: detects blood

**Requirements**

* Complete the project with your assigned partner.
* ~7-10 slides
  + Title slide
  + Slide outlining what you will discuss
  + “Body” slides
    - History of the technique
    - How it works
    - Chemistry behind the technique (must include vocabulary words that we have learned this year)
    - Brief summary of other techniques that accomplish the same purpose (include advantages and disadvantages)
    - At LEAST one crime that was solved using this forensic technique
  + Works cited with at least 4 reputable sources (MLA citations)

**Slides Rubric**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **4** | **3** | **2** | **1** |
| *Content (worth 3x as much)* | * Clear and concise * Logical progression of ideas * Accurate and complete | * Logical progression of ideas * Unnecessary length/detail | * Vague in conveying point * Information shows some understanding of topic | * Lacks a clear point * No logical sequence of information * Limited understanding of topic * Not all accurate |
| *Text Elements* | * Easy to read * Point size varies appropriately for headings and text * Not too much text per slide | * Font is sometimes difficult or distracting to read * Some slides contain too much text | * Font is often difficult to read * Many slides contain too much text | * Text is extremely difficult to read * Inappropriate use of color contrast, bold, etc. |
| *Appearance/Layout* | * Layout is visually appealing and supports overall message * Appropriate use of background and/or theme | * Layout is pleasant * Background is appropriate | * Layout appears cluttered or busy * Background is distracting * Large gaps of space | * Layout is clustered or confusing * No headings * Background is very distracting * Large gaps of space |
| *Images* | * Variety of images, charts, and/or diagrams * Images add to presentation | * Most images add to presentation * Some variety in types of images included | * Very few images * Images are inappropriate | * No images * Inappropriate images |
| *Writing Mechanics* | * No spelling, punctuation, or grammatical errors | * Little or no editing required for spelling/grammar | * Some errors | * More than 5 errors * Spelling, punctuation, capitalization, usage, and grammar errors are repetitive and/or distracting |
| *Sources* | * Correct number of sources * MLA citations * Reputable | * Correct number of sources * MLA citations with 1-2 errors * Reputable | * Missing one source * Most sources are reputable * 3 MLA errors | * Missing more than one source * Unreliable source * Incorrect MLA citation |

Presentation Rubric:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **10 points** | **8 points** | **6 points** | **4 points** |
| *Delivery* | * Holds attention of entire audience with the use of direct eye contact, seldom looking at notes * Speaks with fluctuation in volume and inflection to maintain audience interest and emphasize key points | * Consistent use of direct eye contact with audience, but still returns to notes * Speaks with satisfactory variation of volume and inflection | * Displays minimal eye contact with audience, while reading mostly from the notes * Speaks in uneven volume with little or no inflection | * + Holds no eye contact with audience, as entire report is read from notes   + Speaks in low volume and/ or monotonous tone, which causes audience to disengage |
| *Content/Organization* | * Demonstrates full knowledge by answering all class questions with explanations and elaboration * Provides clear purpose and subject; pertinent examples, facts, and/or statistics; supports conclusions/ideas with evidence | * Is at ease with expected answers to all questions, without elaboration * Has somewhat clear purpose and subject; some examples, facts, and/or statistics that support the subject; includes some data or evidence that supports conclusions | * Is uncomfortable with information and is able to answer only rudimentary questions * Attempts to define purpose and subject; provides weak examples, facts, and/ or statistics, which do not adequately support the subject; includes very thin data or evidence | * Does not have grasp of information and cannot answer questions about subject * Does not clearly define subject and purpose; provides weak or no support of subject; gives insufficient support for ideas or conclusions |
| *Enthusiasm/Audience Awareness* | * Demonstrates strong enthusiasm about topic during entire presentation * Significantly increases audience understanding and knowledge of topic; convinces an audience to recognize the validity and importance of the subject | * Shows some enthusiastic feelings about topic * Raises audience understanding and awareness of most points | * Shows little or mixed feelings about the topic being presented * Raises audience understanding and knowledge of some points | * Shows no interest in topic presented * Fails to increase audience understanding of knowledge of topic |